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ABSTRACT

Vocational education and training (VET) systems and their institutions should be highly directed toward innovation, but the position of VET in existing educational systems does not automatically enhance innovation. Within the existing educational systems, innovation in VET has to overcome a number of problems; the literature also indicates factors that could further hamper the conditions for innovation. One factor remains the same across all VET systems: the level that should execute the innovation should be doing so either because they are convinced, loyal, rewarded, or forced to do so. Responses of experts at a conference held in Bled, Slovenia, indicate the following: the expected "positive" elements (convincing for institutions) score relatively lower than the expected "negative" elements; institutions are somewhat more active as initiators of change than government or social partners; failure of innovative processes is caused by a lack of time for implementation, insufficient staff preparation, lack of extra funds, or lack of feedback; and institutional support for innovation is of vital importance. Conference participants believe the issue of key actors' involvement is of vital importance and the importance of personnel policies cannot be underestimated. Possibilities for international cooperation are: continuing study, extension to company training, experimentation and supporting innovation, and human resource management policies in VET. (Appendixes include terminology, participants' list, and questionnaire.) (YLB)

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Subgroup A

FINAL REPORT

STRATEGIES FOR INNOVATION IN VOCATIONAL EDUCATION AND TRAINING REFORM

1998

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TABLE OF CONTENTS

	1	Page
Exec	utive summary	5
Intro	duction	7
1.	The paradox of innovations in VET	8
2.	Intermezzo: the limitation of the scope of this project	12
3.	The complexity of innovation in VET: theory	13
4.	The challenge of innovation in VET: practice	15
5.	The contents of innovation	23
6.	Discussion and conclusion	31
7.	The possibilities for international co-operation: suggestions to the ETF	34
Anne	ex 1: Terminology	36
Anne	ex 2: The participants	37
Anne	ex 3: The questionnaire	42



EXECUTIVE SUMMARY

Within the framework of the Advisory Forum of the European Training Foundation, Subgroup A has investigated the issue of "Strategies for innovation in vocational education and training". In order to better understand the effect of the different innovation strategies, the working group collected experiences on three issues: innovation in curricula, innovation in personnel policies and innovation in institutional management. Government-funded vocational education and training (VET) institutions were the focus.

In a rapidly changing society VET systems catering for the vocational education of over 50% of the population, must be highly receptive to change and able to innovate their educational services accordingly. Moreover, VET institutions should set the example to the overall education systems and society in general in terms of flexibility and innovation character. Most countries represented in Subgroup A are embarked in VET reform processes promoted by their governments and many references were made in the discussion to examples of innovative practices or efforts coming from one country or another. However, the results of the study show that in general conditions for innovation in VET systems are not always the most favourable; as a consequence of this, the systems and the institutions within them are less innovative than they could be or, in some cases, should be. Three main factors contribute to that:

- the position of the VET system in most educational diagrams. In a number of countries VET appears as a second choice option for young people in comparison with general secondary education which allows entrance to higher education. This factor, which, to a certain extent, is psychological, contributes to an inferior stature in society in general, and in politics in particular. In other words: the value of VET is not always sufficiently appreciated, which leads to lesser (political and societal) attention than deserved.
- 2. the conditions in innovation processes (especially government directed innovations) should clearly be improved. The study reveals at least 10 factors for improvement including policy design, ratification and implementation.
- 3. management traditions within VET institutions do not provide an ideal environment for innovation. There is a lack of an active human resource management for teaching staff; performance related financial incentives for quality and innovation and continuing training and updating for teachers to bring them into direct contact with the world of work leading to the insufficient application of innovation.



This means that in terms of "strategies for innovation in VET" clear improvement is possible and should lead to better results. The Subgroup discussion held in Bled (Slovenia) and consequently this report try to explore the possibilities for enhancing innovation in VET and it reaches the following main conclusions:

- A well balanced level of autonomy of VET institutions is needed in the context of a redistribution of responsibilities between the various actors;
- A performance relation between the funding party (usually the government) and the executing party (VET institution) should be established;
- A multi-actor involvement of societal agents is required, especially in those countries with economies in transition;
- VET systems should set an example in both the education system and society in general;
- The issue of innovation in the field of personnel policies in terms of human resource management should be tackled;
- Strategies for implementation should be considered carefully in advance. Much improvement in final results can be expected if the strategies are more carefully considered;
- The same applies to the conditions linked to the implementation (i.e. the level of effect and success could be raised considerably by, for example, more interaction, possibilities for feedback, more time for implementation, sufficient possibilities for preparation by the institutions). More attention paid to these issues could enhance the effect of innovation.
- Innovation is not a temporary issue: it is here to stay and it is a continuous process. All actors in the system need to adapt themselves accordingly.

In conclusion, the choice of innovation strategy (seven options are highlighted in this study) is vital for the success of both government directed innovation and VET institutional innovation and should receive careful attention at all stages of the process from the design to the evaluation of the implementation.



INTRODUCTION

"Strategies for innovation in VET reform" is the topic that brought an interesting group of experts from a wide range of countries together in Bled, Slovenia, from March 29 - April 1 1998. This group was one of the working groups (to be more exact: subgroup A) of the European Training Foundation's Advisory Forum and had the task of enhancing the knowledge and understanding of innovation in VET. In total there are four subgroups; the other three worked on the following issues:

- Subgroup B: Quality assurance in continuing vocational training
- Subgroup C: Evaluation of vocational standards
- Subgroup D: Development of core skills, including entrepreneurial and managerial skills.

The meeting in Bled was a success. A substantial number of experts from a wide variety of countries joined forces and experiences. In a well-designed mixture of plenary meetings and intensive working groups, the collective intelligence on the aspects of VET innovation was mobilised and provided important insights into the question of how to achieve effective innovations in VET and answers to the following specific points:

- What is innovation in VET?
- Which policy instruments can be used?
- What level within the institution should the innovation be directed towards?
- How should the main actors be involved?
- What are the areas for possible international co-operation in this field?

One question received more limited attention than originally intended: what are the experiences of innovation on training in enterprises. Participants gave priority to innovation in VET institutions. Time restrictions meant that the topic of training in enterprises could not be thoroughly dealt with.

In this paper the input from all sides is synthesised and set in the context of the pre-agreed questions.



1. THE PARADOX OF INNOVATIONS IN VET

1.1. The importance of skilled staff

In 1996, ICI took over 4 Unilever chemical plants for the sum of 8,000,000,000 US\$. It was one of the several thousand companies which change hands each year. The interesting element in this case is the price, which constitutes the equivalent of 23 x annual profit. What makes such a company so interested to pay such a relatively high price? The answer lies in is the "knowledge and abilities" of the workforce. The collective intelligence of creative well-educated and skilled workers suggests major opportunities for the future. Skilled workers are for most Western European countries by far the most important future "raw materials". Skilled workers are required at all levels, from those who design and invent to those who implement, produce and transport. The policy questions connected to the management of knowledge in a broad sense require the most urgent attention!

1.2. The dynamics of VET

The world of work is full of dynamics. Societies are changing with unmatched speed and for the economies in transition, the speed is even more dazzling. If ever predictable in our history, in modern times the predictability of economies and their required manpower barely exceeds a time-span of 2 to 4 years. With the significant changes in skills required within professions due to rapid technological development, skills learned in VET institutions are, for most professions, old fashioned and outdated within 3 to 5 years. Life-long learning, as an investment in human resources is no longer a desirable direction, but a basic necessity for companies in (inter)national competition and individuals competing for good positions within the labour market.

In this dynamic world, VET institutions are managing to provide students with the right training for the professions of the future. Is seems a real challenge and in fact an almost impossible mission to keep up with the pace of change in society. VET systems should have almost the same potential as enterprises in the midst of world-wide competition and be:

- Highly directed towards innovation;
- Be strongly oriented towards the labour market;
- Be very flexible;
- Rely upon highly skilled teachers who are in direct contact with trade and industry;
- Be managed in a way which stimulates and rewards innovation.



Conclusion 1: VET systems and their institutions should be highly directed towards innovation. In fact they should be the most innovative area within education systems.

1.3. The position of VET

In all European countries, central and/or local governments fund their educational systems for various age groups from (pre-) primary education to higher education. Within various education system diagrams, formal VET (SEDOC levels 1 to 4) is usually an integral part of the educational environment. In the design of VET systems, governments are (or in the past "were") confronted with a number of important questions:

- 1) where to place VET in the educational diagram?
- 2) what age group should be attracted?
- 3) for what professions should the VET system provide?
- 4) to what level of specialisation should it educate?
- 5) where should the governmental responsibility for VET stop (and thus the responsibility of other actors start).

Where to place the VET in the educational diagram is the first, and very basic question. Looking at the existing educational systems in most European countries¹, early forms of VET-education start right after primary school and are the "counter balance" to the forms of general education. General education however has a generally higher status and better connections to further education, which leaves these preparatory forms of VET more as a second choice than as a firm option. This negatively influences the stature of preparatory VET, and this bias is unfortunately still visible in the later stages of VET.

'Real' VET (in terms of the SEDOC levels 1-5) starts in most systems around the age of 15/16 years and requires a substantial number of years. Most often levels 1-4 and 5 are separated into secondary VET and tertiary (or higher) VET. The first orientation, due to the position in the educational diagram, is directed towards the age group of roughly 15-20 whereas the qualifications are relevant for almost all age groups. The second question "which age-group" should be attracted is thus automatically answered by the position within the educational diagram.

For example the country studies by CEDEFOP on "vocational education and training" and the "country reports on the vocational education and training system" by the European Training Foundation.



With regard to the third and fourth questions, there are 1000's of professions and the question should be raised if the government should be held responsible for VET at all levels for all possible job profiles and for all age groups. In other words, what is the required "breadth" of VET? Should it be rather general and leave the specialisation to the next phase? This would lead to a relatively small number of studies on the one hand, but no more than limited job preparation on the other. Much additional study after the initial phase would be required. The opposite direction would be a rather specialised VET system, with a substantial number of studies and better job preparation. Different countries have different answers: Denmark, on the one side, has less than 100 VET studies for just about the same spectrum of jobs as the Netherlands where there are around 700 studies. This difference is influenced considerably by the national understanding of division of labour and responsibility for education between government(s), social partners (including branch organisations and individual companies) and the individual. In all countries there should be a well defined mixture of responsibilities for VET between these actors, leading to clarity on what society can expect of the VET system from the government side and what is "left" to other actors. Such a division should be rational and carefully designed and it may vary considerably over time.

The fifth question is perhaps the most challenging. Within the existing educational diagrams the question addresses two elements which, in practice, conflict: age and level of specialisation.

The position within the educational diagrams, the complex choice between the breadth and the level of specialisation, the dominant orientation of young students and the division of labour between government funded education on the one side and the responsibility of other actors on the other, do not seem to place VET systems in a climate of automatic and intrinsic innovation. The type of this systemic tension has the tendency to be conservative and counter-productive to innovation.

Conclusion 2: The position of VET systems in existing educational diagrams does not automatically enhance innovation.

1.4. Two sides of government

In most countries in the East and the West, the responsibility for the various stages of VET is in the hands of two separate ministries: one for education and one for labour affairs. In essence, such a distinction can be rational and practical and the field of VET is wide enough to keep the two ministries busy. In practice however, in most countries a less positive approach is shown. There appear to be substantial boundaries and differences of culture between the two ministries. Contact is usually limited and sometimes even hostile. This leads to insufficient communication and an undesired lack of connection between government policies for "initial" training and "post-initial" training.



As already mentioned, initial VET systems in many countries are oriented towards young persons. Nevertheless, the future demands of the economy, particularly in countries with an economy in transition indicate that a portion of the workforce needs to be retrained or 'upskilled'. Combined with the necessity for life-long learning, the need for a wider orientation for the younger generation is essential.

This new challenge cannot be carried out successfully however, if the organisation of VET remains as it is. Re-schooling and upgrading of working people requires the availability of education outside working hours; it requires a close monitoring of prior (learning) experiences and a maximum use of modern media to enhance the opportunities of combining work and learning.

Conclusion 3: Initial VET should cater for a larger section of the population than the current orientation towards young students.



2. INTERMEZZO: THE LIMITATION OF THE SCOPE OF THIS PROJECT

The issue of innovation in VET is a vast and multifarious terrain. Given the scope and time frame of the project, is necessary to narrow the field of inquiry. The following three areas were therefore selected:

- a. Innovation in the content of curricula;
- b. Innovation of personnel policies within VET institutions;
- c. Innovation of institutional management.

These choices (although all choices are to some extent arbitrary) are well documented in that:

- A curriculum contains the material that should be taught to students. Obviously the
 content of curricula is of great importance as it expresses the purpose of the course in the
 deepest sense. In a rapidly changing economic environment, the curriculum should be
 adapted frequently to keep up with changing needs. It is important to find out why and
 how the content of curricula is innovated and what effective strategies for change could
 be distinguished.
- 2. The curriculum is transformed into a learning environment whereby teachers use a variety of methods to teach their students. The skills of teachers and their dedication are important elements of the success of the VET system and thus it is the way in which personnel policy is implemented that is of major importance. In most European countries governments prescribe many of these policies; in some the room for manoeuvre for different types of "human resource management" at institutional level are more extensive. The distinction of the level of authority responsible for decisions on personnel policy is, in this study, not the direct focus of attention. Attention is directed to the questions of why and how personnel policies are innovated and what effective strategies for change could be distinguished.
- 3. The main power within an institution lies with its management. It is the "top-layer" of the institution and controls all management instruments that are, in the context of the system, available. What are the recent innovations in institutional management? Is the institutional management of the VET institution able to apply an innovative, stimulating, responsive policy?

In the discussions, these three topics were basically used to identify factors and conditions that influence the possibilities for innovation, either positive or negative.



3. THE COMPLEXITY OF INNOVATION IN VET: THEORY

3.1. VET innovation-obstructers theory

In section 2 a number of factors have been identified, which illustrate that within the existing educational systems, innovation in VET has to overcome a number of problems. Moreover, in the literature available a number of factors are identified which could further hamper the conditions for innovation in VET. Six of these factors either related to education in general or more directly related to VET systems, are presented below. Section 4 will investigate whether or not these factors indeed form an obstacle to change and if so, to what extent.

- 1. the ambiguous position of VET institutions which are on the one hand often controlled and/or steered by governments (or agencies working on their behalf) while on the other, are responsible for an active and innovative education policy. The authority of governments is based on fact that they serve the public and (usually) fund VET institutions and attempt to protect vital interests of access and accountability.
- 2. the psychology of VET institutional management and their policies, which is directly affected by heavy government involvement. Much managerial communication and effort is not directed to monitoring of the needs of trade and industry, but to the needs of governments and/or bodies which operate on behalf of governments. This leads to a mind-set psychology not primarily directed towards the monitoring of societal change and innovating educational products accordingly.
- 3. educational institutions are generally intrinsically conservative. It is well documented that educational institutions (and VET institutions are probably no different) are slow to respond to societal change and not necessarily champions of innovation. In most systems the use of government policy instruments to stimulate (parts of) institutions to effectively adapt to changing circumstances is not well developed. In other words: institutions are not always stimulated or rewarded for change. Furthermore, in the balance of authority (for instance between governments and VET institutions) the institutions do not always have the legal power and/or the revenue, to play an active role in monitoring change and implementing innovation. This intrinsic conservatism does not at all imply that nothing is happening in terms of innovation, but it expresses that innovation takes place within institutional norms, which are usually quite different from societal standards.



- 4. society (including trade and industry) is not able to give clear and unambiguous signals on the direction of change. It appears difficult, for instance, to forecast the required VET skills of the future. It is well documented that trade and industry, even multi-national companies, do not have the ability to forecast required skills of the labour force more than 3 5 years in advance. Given the fact that vocational training will take between 1 and 4 years, it is hard for VET institutions to predict the needs of the future and educate their students accordingly. In countries where the signals of trade and industry are channelled centrally (through, for instance, governments or intermediate organisations) a massive and somewhat bureaucratic, predominantly procedural-oriented apparatus results. Signals that go through this apparatus are slow, reach institutions late and give little time for implementation.
- 5. the personnel policies of VET institutions are insufficiently influenced by the outside world. In general, the teachers in VET institutions have relatively little contact with the daily practices of trade and industry. They are often educated in teacher-training colleges and remain in the social niche of education for most of their career. The active use of potential teachers that have active and prolonged experience in trade and industry is most often blocked by the fact that they have no educational credentials.

In practice it is not easy to reduce the gap between labour-market needs and educationoutput. The process of change (including the methods, the policy instruments, the actors) is a complex but challenging cocktail of ideas and interests, possibilities and impossibilities.

- 6. government attempts to innovate educational systems are not always effective. Within initial VET, which in most countries is (predominantly) funded by governments, this causes the additional problem that government directed change often lacks effectiveness. The level of effectiveness has been investigated particularly in higher education policies. Although (higher) education systems differ greatly from country to country, recent research has shown that around ten factors influence the limited success of government policies in educational change. They can be summarised as follows:
 - * insufficient awareness of the intrinsic limitations of policy direction,
 - * a predominant: use of classical policy instruments,
 - * a wide ranging and complex stream of control signals,
 - * negative interference,
 - * lack of results remains unpenalised,
 - * policy development is not interactive,
 - * reasons for change are not always convincing for institutions and often lead to marginal efforts in implementation or even "academic gaming",
 - * the effects of political decisions and compromises,
 - * ambivalent political decisions and insufficient speed in the process,
 - * implementation periods are generally too short.



4. THE CHALLENGE OF INNOVATION IN VET: PRACTICE

4.1. Introduction

♦ In search of strategies for innovation

To date, arguments have been gathered related to the premise that innovation in VET is vital but complex. In section 3 a set of six possible factors have been identified which hamper or stimulate innovation. Most issues are closely linked to government VET policies. The question is, to what extent do these factors occur in practice and in what ways do they stimulate or hamper VET innovation?

Innovation is, in essence, the attempt to alter behaviour of institutions through the people working within them. In the end, it all comes down to the people who have to implement or execute the innovation. In many of the top-down innovation processes the executive layer receives the least attention, while they are obviously the key factor to successful implementation. For VET this implies that proposals for innovation should be interesting or considered important by those who have to execute them. If governments propose and/or decide for change, they should at least stimulate the management, but further effectiveness could be achieved if the teaching staff is convinced as well. In the event that the institution's management decides for change, it should be considered relevant and worthwhile by the lower managerial layers and the teaching staff.

The execution of innovation can take place within, roughly, seven types of strategies. The following table presents these strategies:

Strategy	Description	Expected outcome
loyalty	actors* are loyal towards the cause or the party which takes the decision for innovation	strong if actors are indeed loyal, vulnerable if the implementation of innovation depends fully on loyalty of actors
persuasion	actors are convinced that the innovations are useful and worth implementing	strong, but in the complex practices of modern management full conviction cannot always be achieved
incentives	institutions are stimulated to implement innovation	positive if the "reward" (or penalty) is strong enough to get things going in the institution. Motivation to innovate can however be reduced if the incentives stop
win-win	both actors and the party that takes the decision on innovation have something to gain	strong and more durable than the incentive approach. However, not all innovations can lead to win-win situations



Strategy	Description	Expected outcome
reward	actors are rewarded for innovation	in itself strong if the reward is high and/or visible enough. Vulnerable if the reward stops and may lead to the psychological mindset that innovation can only take place if externally rewarded
force	institutions are forced to innovate (for instance through legislation)	classical method which seldom really works if the institutions do not accept the innovation as convincing and/or rewarding.

^{*} Actors could be institutions, layers of institutional management and/or teachers

All VET systems are different, as are most innovations. This implies that not one golden rule for a successful strategy can be presented. In most cases two or more strategies are executed at the same time. However one factor remains the same: the level that should execute the innovation should be doing so, either because they are convinced, loyal, rewarded or forced to do so.

4.2 The inquiry

4.2.1. From theory to practice

To investigate what (mixtures of) strategies were applied in the countries assembled at the Bled conference, and to estimate the level of success, the experts were asked to fill in a questionnaire. This questionnaire covered almost 200 points and was distributed in advance and collected as well as data-processed during the meeting in Bled (see annex 3). The points were in the form of statements which had to be statistically evaluated (scoring 1 to 5) in terms of agreement or relevance. The first outcomes were presented during the meeting and discussed and evaluated in the working groups.

Before some of the material of this specific study is presented, it should be noted that a number of participants clarified that their position in the inquiry should not be interpreted as an official position of their government or organisation. Moreover, the questionnaire addressed such a variety of issues that not all participants considered themselves as experts on all issues.

4.2.2. The results

Section 3 concluded that government decided change in educational systems has a limited effectiveness. Although much of the research for that conclusion is based in the field of higher education, it is likely that it will have some validity in the VET sector as well.



It is important to note that the questionnaire did not intend to present a real and complete evaluation on the effect of government and management strategies in VET in the countries present in the seminar! Neither the methodology chosen nor the forum is fully fit for such a purpose. However, any investigation regarding the influence of elements that might contribute to a better understanding as to why some strategies work and others do not, is worth a try. With this reservation and limitation, the results nevertheless provide an interesting insight. In the following 6 points, the results are summarised.

1. The reason for innovation

In the literature available it is suggested that the reason why innovation is proposed and/or agreed has an important impact on the result. However, this is not always taken into consideration in the choice of innovation strategy. If institutions, which, in the end, are the real carriers of the innovation, are convinced that the innovation in question is worthwhile, the results may be much more promising than in cases where the institution is not convinced at all. If they are not convinced, strategies with force, incentive, reward or win-win (or a combination of these) should be introduced, otherwise a rather disloyal and poor implementation could result. Reasons that are not automatically convincing for institutions (or layers within institutions) could be budget cuts, political factors (interesting primarily for politicians), problems identified by governments (and thus not necessarily accepted by institutions) and problems identified by the world of work. Reasons that are likely to attract more positive attention are innovations directed to the quality of education, student needs, problems identified by the institutions themselves and the needs of the world of work.

These issues were presented to the forum on the three originally selected issues (curriculum innovation, innovation in personnel policies and innovations regarding institutional management).

The outcome of the study made clear that the expected "positive" elements (convincing for institutions) score relatively lower than the expected "negative" elements. In other words, in the majority of cases where innovation is proposed by governments the background will not be taken positively by the institutions. This in turn will raise questions regarding their loyalty and efforts to make this innovation a success and thus on the type of strategy that governments should apply. The lowest score was given to the (for institutions always convincing) strategy to base innovation on problems identified by institutions themselves. A strengthening of interaction between policy-makers and institutions might help to overcome this problem.

There was a limited difference in the reasons for innovation regarding the three key-issues (innovation in curriculum, personnel policies and institutional management). The scores differed within a margin of 10%. That is a relative limited margin, which could show, that it represents the general approach of governments in cases of innovation.

In summary:

Reasons for innovation (expected negative list) that received a higher score

political reasons



- budget reasons
- problems identified by government
- problems identified by the world of work

Reasons for innovation (expected positive list) that received a lower score

- improving the quality of education
- · catering the needs of students
- · responding to the needs of the world of work
- problems identified by VET institutions

2. The initiative for innovation

Important in the successful implementation of change by institutions, is the question of who took the initiative for change. It may be expected that if institutions are mostly the initiators of change, the level of acceptance of the measures by the implementing institutions will be a higher than if the initiative had come from the government or social partners. As mentioned before, this will have an impact on the choice of strategy.

The level of initiative can be summarised as follows:

	Initiative by government	Initiative by social partners	Initiative by VET institutions
curriculum	low	low	low
personnel policies	very low	very low	low
institutional management	low	very high	high

Institutions are thus somewhat more active as initiators of change than government and/or social partners. This in itself is a positive element for the possible level of success of innovations carried out by the institutions themselves.

Is the government proposed or agreed change clear for the institutional management, the teachers and the social partners?

It is claimed that due to the high level of abstraction and the lack of concrete elements in plans, it is often unclear for key actors (such as the institutional management, the teachers that have to implement the innovation in practice and social partners that have to understand the innovation to be able to estimate the qualities of graduates) that have to execute and implement this change, what the change is about.

	Is it clear for social partners	Is it clear for VET-teachers	Is it clear for VET institutions
curriculum	unclear	rather clear	clear
personnel policies	unclear	clear	very clear
institutional management	very unclear	unclear	unclear



As can be noted, all questioned innovations were rather unclear for social partners. Curriculum innovation and innovation in personnel policies were clear enough for teachers and VET institutions as a whole, while the changes in institutional management were rather unclear.

3. The preparation of the innovation

The process of innovation in education is a complex matter. After a lengthy and intense period of preparation, discussion and political decision, the implementation is often an almost "under-estimated" issue. Failure of innovative processes is shown to be caused by a lack of time for implementation, insufficient preparation of the staff (e.g. teachers) to fulfil the innovative actions, lack of extra funds or lack of feedback. Moreover, the interaction between various actors in the process of policy development and policy decisions, is not often sufficiently developed.

These findings were fully confirmed by the Bled conference participants.

Issue	Evaluation
Sufficient time to implement the innovation	very low
Adequate preparation of staff for new tasks resulting from the innovation	low
Additional funds to cover costs related to innovation	low
Feedback during the process of innovation	low
Interaction between actors regarding the implementation	low

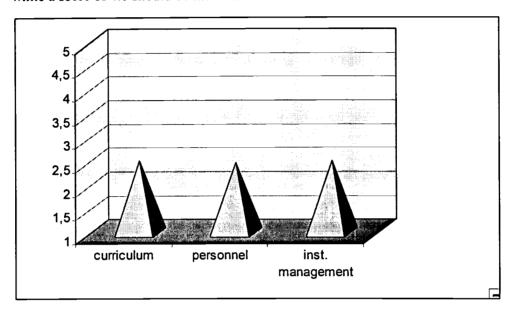
Even with the best choice of strategy(ies), results of the implementation processes will remain sub-optimal if actors have insufficient time, are prepared inadequately, have little additional funds at their disposal to cover transition costs, have little possibilities of feedback and interaction

On a more positive note conditions for successful implementation on innovation can be highly improved along the lines of more time, better preparation in terms of competencies and transition funds, interaction and feedback opportunities.



4. Is innovative practice in line with the desired outcome rewarded?

Are institutions that are eventually the carriers and implementers of the government decided innovation, rewarded being in line with the desired outcome? It may be expected that a reward (or penalty) could contribute to a climate of meaningful, successful and enthusiastic implementation. However, it is documented that in education policies good practice in not rewarded and bad practice barely penalised. This is the case in government-decided innovations as well as innovations that are decided by institutional management. As table below shows good practice is not rewarded at all. The scores vary between 2.4 and 2.5, while a score of 4.0 should be the minimum!



This can seriously undermine the loyalty of institutions, if disloyal institutions are not punished. Furthermore, it seems that the above-mentioned strategies of incentives, reward and win-win are not often applied.

5. The level of institutional support

Institutional support for innovation is of vital importance. Obviously this support can be achieved in many different ways and some of these have been investigated in the Bled questionnaire. The results so far have not been very promising and the strategies do not appear to be directed towards gaining institutional support. This lack of support was confirmed, with an interesting difference between the three innovative issues considered in this study.



innovation directed towards ⇒	curriculum	personnel policies	institutional management
institutional support	3.6	3.7	2.8

For a minimum positive score 4.0 should be achieved and these scores are clearly lower, particularly that of institutional management.

In a secondary analysis of the material, it became clear that this low level of institutional support correlates strongly with most of the elements already mentioned: the reasons for innovation, the level of clarity, the conditions under which implementation has to be executed and the absence of reward for good behaviour.

6. The level of effect and support

Looking at the scores so far, the conditions under which innovation takes place are not always favourable. But what is the overall judgement on the effect of the innovation and the level of success? The table below shows that the level of effect does not reach the minimum positive score of 4.0. The level of final success of the innovation is slightly negative or mildly positive in the area of curriculum innovation and personnel policies, but clearly positive in institutional management.

innovation directed towards ⇒	curriculum	personnel policies	institutional management
level of effect	3.8	3.5	3.9
level of success	3.9	4.0	4.5

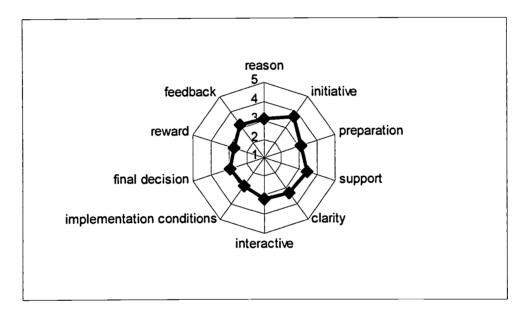
In the secondary analysis, these scores on the effect correlate with the previously presented results of the reasons for innovation; the level of clarity, the conditions under which implementation has to be executed and the absence of reward for good behaviour. Hardly any correlation scores the estimated level of success. This seems to be an isolated (yet nevertheless relatively positive) evaluation.



4.3 Conclusions

In this paragraph various aspects of the process of policy design, policy decision and implementation of innovations proposed/decided by governments are analysed. In the radar-plot below, the material is summarised into 11 elements. The radar plot shows clearly that the conditions for innovation could in various ways be improved. Although the effect of innovations was distinguished as "insufficient", the level of success was more promising. This could lead to the conclusion that if the conditions for innovation could be improved, the effect could be higher and the level of success further strengthened. The choice of (mixture of) strategies thus remains of vital importance.

Summary of the findings per clustered item. Favourable conditions are reached starting at 4.0 and above.





5. THE CONTENTS OF INNOVATION

As mentioned before, the conference primarily focused on strategies of innovation. Yet no (discussion on) innovation without substance and possibilities for innovation was concretely discussed in terms of the three issues of our attention:

- The innovation of curricula (how is/can it be achieved that the contents of the education is up to date and responds to society's needs).
- The innovation of personnel policies for teachers that work in VET institutions (how to professionalize the teaching body for maximum results).
- The innovation of VET institutional management (how to adequately equip institutional management to optimise their tasks in managing the VET institution).

As mentioned before, in the Bled conference, three working groups were formed to discuss the issues more in depth. All working groups covered all issues. In this paragraph the views expressed in the working groups on these three issues are presented.

5.1. The innovation of curricula

Three issues drew the most attention of the working groups: key-competencies; whom to teach and what and who to involve in the process of curriculum innovation.

5.1.1 Key competencies for modern professions.

In no part of our educational echelons is innovation so crucial as in the field of vocational training. Rapidly changing society and its economic implications put vocational education and training in the permanent spotlight of change. It is the role of VET to educate students for the labour market, and although it is almost impossible to educate all students for the wide range of professions in society, directly of use in all companies or business VET must be relevant and productive for the functions that are required in society. It is of little or no use to offer students a training that is outmoded or does not otherwise provide the skills required.

The difficulty of such rapid economical change is that the speed at which the content of VET should adapt is extensive. But are all course elements permanently "on the move"? Would it be possible to identify broader lines of competencies that could be considered key for a substantial number of professions? The discussion resulted in an interesting list of competencies that will most likely be relevant for a longer period:



Possible key-competencies:

- flexibility,
- * creativity,
- learning how to learn,
- problem solving,
- * entrepreneurship,
- * practical application of knowledge,
- * language and communication skills,
- * command of information technology,
- teamwork and networking,
- * project planning and management skills,
- multi-culturalism.

Innovation with the help of "key competencies" thus makes curricula more changeresistant, because the desired outcomes are not merely formulated in narrow skills (which are also required) but in broader competencies. This approach also provides a better starting point in terms of learning abilities in the concept of life-long learning. Having achieved a number of the above-mentioned competencies, new skills (due to the ageing of the old ones, or as the result of personal mobility on the labour market) can easily be added to the old ones. It provides a fertile soil for further education within the sphere of company training.

Conclusion: more attention for key-competencies in VET in curriculum innovation is an important contribution to more durability and effect of VET courses.

5.1.2. The numbers

Particularly in countries with a former (partly) planned economy, the question of "who to educate in VET and in what numbers" is a challenging one. Being used to at least some form of predictability of the economy, job development and the skills required by the dynamics of a market-economy lead to a feeling of uncertainty and loss of control.

How can economic trends be monitored in order to show what adjustments to the various elements of the VET system are necessary?

In the discussion in the conference, it was clear that no "ultimate" answers are possible. The predictability of needs varies per profession. Furthermore, if VET is geared towards key competencies rather than skill-orientated functions, its suitability for a wider range of professions on the labour market will be ensured.



Most countries in the West have relatively open and accessible VET systems (level 1-4). In general there are minimal entrance regulations and restrictions on the number of students for certain disciplines is the exception rather than the rule. The assumption behind this approach is that the expected future job situation will be strongly taken into account in student's choice of study i.e. it is unlikely that a student will choose for a low level of job guarantee.

However, the desire to have at least some control over quality and quantity, leads most Eastern European countries away from Western approach, not least because the Western model automatically contains a waste-factor that many would like to reduce. This means that in the changing economic environment, the methods of monitoring and the techniques of labour-market needs should be improved. Help from scientific institutes will be beneficial.

The issue of "what and for whom" has and will never really been solved. For the future two important options are available to tackle the problem from a different angle:

- 1) key competencies which provide a more flexible position on the labour market;
- 2) **VET provision within companies and firms** for the fine-tuning of skills required for the jobs that will be carried out. Stimulation of VET provision within companies in the context of life-long learning can be an important instrument for the future.

5.1.3. Who to involve?

VET should be in the midst of society, catering for the needs of the economy. But how should these needs be monitored and who should be involved in the various stages of curriculum development? To what extent is society in general, and the economy in particular, organised and able to present clear and un-ambiguous signals? The problem is universal and partly an inherent condition of VET. In previous working groups, the European Training Foundation has paid extensive attention to this issue. That attention has clarified that the problem is, to a certain extent, one of organisation. In some countries societal segments are organised, in other countries there is hardly or no such tradition. The form and level of organisation can be very diverse, ranging from organised social partners (trade unions and employer organisations) which cater for the organisation of several (or almost all) fields in the world of work; to (inter)national professional organisations which cover one (set of) profession(s). The question of organisation cannot be answered in the scope of this study, nor can an answer be given to the question of what the most prominent form of organisation should be. Answers on both issues will vary from country to country and may change over time.



Nevertheless, a strong social influence on various aspects of the VET system is of utmost importance for its relevance. Within the scope of this section, this applies particularly to the content of the curricula and thus to the innovation of curricula. It is essential that the VET system is fully accepted and recognised by the key actors. They should fully "trust" the content and quality of the degrees conferred by the institutions. In other words students should know in advance that their diploma in initial education is accepted by society and society should have sufficient trust in the VET institutions to rely on the quality of the education they provide. This implies a maximum level of commitment of those involved to the education that is provided by the VET system (particularly with regard to the questions raised above: the number of studies, the level of specialisation, the global content of the curriculum). Those involved should have the opportunity to express their views on the future and those in receipt of training must expect that these visions on the future are taken seriously. Substantial, meaningful influence affects the level of commitment by those involved. Such commitment is required for the functioning of the VET system in every modern society: it is the basis of the employers efforts to establish or maintain an apprenticeship system, to provide VET with trainee posts in all private and public sectors of the economy to invest additionally in the VET system and to share expensive equipment.

In countries with an economy in transition, the organisational structure of, for instance, social partners has a different tradition than in the West. The level and/or the type of organisation require a different approach. The opinions on these alternative instruments showed a diverse picture. One of the most concrete was the suggestion of the establishment of a co-ordination board to work closely with research institutes and play a role in planning and decision processes. Whatever function it may have or whatever success could be achieved which such an instrument, it is clear that is does not fully solve the issue of the necessary "deep involvement and trust" of the labour market in the courses. Furthermore, on the one hand, the record of planning institutions has not always been favourable, to put it mildly. In the West there are more examples of mistakes than successes in the attempts to predict future manpower needs. However, on the other hand, it makes sense not to waste scarce government VET money on education for (almost) guaranteed unemployment, particularly in the case of expensive studies with narrow job profiles where some restriction on student numbers is accepted in most countries.

The issue of the "involvement" of society at large in the world of work is crucial for the future of VET development and VET innovation. Solutions catering for a range of the most important issues are needed.

Conclusion: the issue of the involvement of key actors in VET systems is of vital importance. There are a number of means to ensure this.

5.2. Innovation in personnel policies

5.2.1. Introduction

In practice, it is one of the policy domains that seem to be somewhat neglected and undervalued. Personnel policies however are very important for VET systems and their institutions. It is decisive for the quality and conclusive for the stature of VET institutions.



Yet, as mentioned, the importance of (innovation in) personnel policies is not always noted. It was the issue in the questionnaire that showed the highest level of "no opinion" and in quite a few cases this was clarified by the participants by adding that over the last five years few (or even "no") initiatives were undertaken that could qualify as "innovations in personnel policies".

The multi-actor situation and the difficult practice of innovation in personnel policies make it a complex issue. First of all, in most countries the personnel policies are executed by the institutional management within a tight framework of regulations either decided by governments and/or via collective bargaining at national level. Quite often, these regulations are further detailed at local/school levels between the management and the trade unions. In the end the management can do little more than follow these rules irrespective of the situation within the VET institution itself.

Various fields of tension are combined in this issue:

- * The necessity for some form of direction from the centre i.e. at national/federal level as teachers are often "civil servants";
- * The protection of labour conditions of teachers by individuals and/or their trade unions;
- * The necessity for institutional management to encourage good practice through, for instance, regular refresher courses (life-long learning) and some form of performance related pay.

Looking at the results of the inquiry and the presentations of the three working groups, a mix of responsibilities and authority within the issue of "personnel policies" in general points to a climate lacking meaningful innovation. There is still much to be done; being in such a dynamic echelon of the education system, the VET school should be able to provide to a stimulating, quality oriented and interesting environment for experimentation and innovation in education. Highly motivated, highly skilled teachers with a lot of practical knowledge, field expertise, an innovative spirit and a great sense of responsibility should have the opportunity to work under conditions which are favourable to performance. Could VET systems make the step from personnel policies to institutional human resource management?



5.2.2. Direction

In what direction could (or perhaps should) future personnel policies in VET systems develop? What should be the core competencies of the VET staff (teachers as well as trainers) of the future? The following list was drawn up:

Future core-competencies for VET staff:

* General competencies:

- team working,
- communication skills,
- multi-cultural awareness,
- flexibility,
- creativity.

* Specific competencies:

- balancing information, understanding and skills,
- ability to vary teacher roles:
 - ⇒ transmitter,
 - ⇒ facilitator,
 - ⇒ moderator,
- managing classroom learning:
 - \Rightarrow frontal,
 - ⇒ group work,
 - ⇒ individual tasks,
- managing project work:
 - ⇒ cross-curricular,
 - ⇒ linking school and society.

The list of desired extensions of qualities and capabilities of teachers is long, but basically centres around the issue of "establishing new links between institutions and enterprises". Teachers should be heavily involved in innovation: co-operative work; school-business partnerships; school-community links.

The toolbox of instruments for personnel policies is quite full. The working groups came up with the following list:



Specific instruments for personnel policies	Instruments for individual personnel policies
training and methodological support, training and retraining of teachers, incentives, intra-institutional competition, competitive salaries, in-service training for VET personnel in the world of work, independent study (including distance education), international group study and exchange of VET personnel, room for students choice.	 monitoring and evaluation (internal) by: peer evaluation, school improvement policy, monitoring and evaluation (external), independent inspection, advisory services, pilot project steering, committees. resources: regional centres for innovation, handbooks on methodology, new teaching materials including multimedia.

Conclusion: the importance of personnel policies cannot be underestimated; it needs more attention in terms of "human resource management" and sufficient instruments.

5.3. Innovation in management

In VET systems institutional management is expected to have an important and stimulating role in the innovation process. The position of institutional management is somewhat ambivalent. On the one hand the management is expected to bear the responsibility for the performance of the institutions, while on the other, in many countries the level of influence on institutional affairs that matter is limited. These uncertainties are caused by a mixture of powers executed by outside actors (governments, social partners, and teacher-trade-unions) and the formal/legal authority of the institutional management. In other words: the position of institutional management is strongly influenced by the level of institutional autonomy. In the variety of the level of institutional autonomy in the various countries assembled at the Bled conference, it was concluded that within the scope of their power, modern institutional managers should be able to apply the following competencies:

Future core-competencies for VET-management:

* General competencies:

- team working,
- project management,
- planning to meet local, regional and national needs,
- communication skills,



* Specific competencies:

- negotiating skills,
- fund raising abilities,
- ability to balance innovation and stability,
- positive attitude to innovation, staff and institutional development.

Innovation in institutional management, management structures and management styles, could very well be the key-factor in the strive for a VET system which is in the midst of society. Obviously the transfer of knowledge to students remains in the hands of the teachers, but the teachers are in the hands of the institutional management. In that sense institutional management is an important change-agent of the VET system. The core competencies show that a modern institutional management should no longer have a strict authoritarian leadership style, but should be in the first place a communicator and stimulator both in society on the one hand and within the institution on the other. The modern institutional manager should be able to work with a certain level of autonomy but at the same time have sufficient pressure on his/her managerial actions to create win-win situations for all parties. The innovative capacity of a VET system can and will be enhanced by an inspiring institutional management. This leads to the conclusion that: enhanced attention for the position and capabilities of institutional management may help in the strive for a quality oriented, high performing and societal oriented VET system.



6. DISCUSSION AND CONCLUSION

Innovation in VET is a necessity. It should be the inherent drive of all systems and their participants. In a rapidly changing world the innovation process is never completely finished. There is and always will be room for further improvement.

VET systems are important, they provide the fuel for development and growth in modern economies. This importance can hardly be overestimated but strangely enough, the status and respect for VET has not been able to keep up with its added value to society. Underestimating the importance of oriented and innovative VET endangers economic growth. Much depends in the coming years on the political willingness to contribute (particularly financially) to the further development of the VET sector, and actively steer its structure, institutions and programmes to the required level of quality, social relevance and innovative capacity.

What this means in practice and to what concrete actions this should lead to, is hard to answer. At the Bled conference, experts from almost 20 countries again highlighted the great diversity of VET systems in Europe and the difference in approach and expectations. Much of the present approaches and expectations are directly connected to the "state of the economy". Particularly in countries with economies in transition, the complexity of the necessary and/or desired changes to VET is challenging.

This complexity allows no more mono-dimensional approaches or answers and no single parties can direct the whole system. Classical innovation-methods in VET should be innovated. The following table shows the differences between the frequently applied "classic" method as well as a more advanced approach:

Phase	Classic method	Advanced approach
problem orientation	government sees/has a problem	various parties see/have a problem and discuss it in interaction
instrument	legislation as a policy instrument	policy instrument is and/or contains incentives leading to a win-win relation
innovation is directed towards	top management of institution	the level of task execution (teachers)
implementation	adoption of the legislation = implementation	implementation strategy
evaluation	seldom	measuring levels of success for input into new innovative policies

The move towards a more modern approach of innovation suggests that all parties involved are capable and willing to operate in the expected way. In the development stages of the various VET systems gathered in Bled, the differences in history, culture and expectations for the future, once again illustrate that the single solution to all problems is not available and never will be.

However, some common elements were recognised as important contributors to innovative VET systems:



- 1. Certain level of autonomy of VET institutions is needed. This autonomy should reflect a well-balanced division of power between various actors in the system. Autonomy of VET institutions in terms of independence does not reflect the basic mission of institutions: they are (predominantly) funded from public sources and they have a public task to perform. Too little autonomy reduces the possibilities for innovation; too much could lead to isolation and conservatism, whereas the dominant direction of the institutions should be very much open to society.
- 2. Performance relation between the funding and executing party could enhance the results of the system. Many instruments and incentives are available and could be directed more towards quality and quantity of performance of institutions. This will enhance the pressure within the VET institutions to optimise their institutional policies (for instance directed to educational policies, personnel policies and management structures). Obviously this method will only work when institutions have a certain degree of autonomy.
- 3. Involvement of many actors is crucial. VET systems should be in the midst of social (and especially economical) development. They should be able to monitor, absorb and implement required innovations and adaptations to change. This "centre position" in society can only be achieved when key social actors formally recognise and, more importantly, psychologically accept the authority and leading role of VET institutions and are able and willing to contribute to the further development of the VET system. Commitment from all sides is essential in all aspects of innovation in VET, particularly in the three issues in this study (curriculum innovation, personnel policies and institutional policies).
- 4. VET systems should set an example in both the education system as well as society in general. It should be the testing ground for experimentation, innovation and modernisation. This implies a structure, steering practice and management philosophy in which this position can be developed. Such a development should ideally be achieved gradually and the three focus issues of this study (curriculum, personnel policies and institutional management) can be the carriers of change.
- 5. One of the issues strongly neglected is *innovation in the field of personnel policies as a form of human resource management*. A well functioning, capable and enthusiastic staff is a pre-requisite for a well functioning innovative VET institution. On all levels much more attention should be paid to this issue.
- 6. Strategies for implementation should be considered carefully in advance. The inquiry shows that much improvement in the final results can be expected if the strategies are carefully considered.



- 7. The same applies to the *conditions accompanying the implementation*. The level of effect and success could be raised considerably by for example more interaction, possibilities for feedback, more time for implementation, sufficient possibilities for preparation by the institutions. In other words all those areas that will strengthen the level of institutional commitment to execute the innovations firmly.
- 8. Innovation in VET is not a temporary issue. Particularly with regard to the three focus issues of this study, it should be permanently on the agenda. Nevertheless, all organisations, both public and private, will be confronted with the need to periodically replace the "innovation mood" (which in cases may be sporadic or spontaneous) by a more structured "reform approach" (following a pre-designed strategy). More drastic and radical application of unconventional methods that can only be used now and then will lead to too much disruption. Long term disruption has a negative impact. The means of reform is not important so long as it leads to the creation of a VET system that is able to monitor, translate and implement social change in time to play an important role. Reform must be directed towards a management methodology in which VET institutions in co-operation with the key actors in society are able to permanently innovate. It is a permanent necessity to bridge the gap between what is and what should be.



7. THE POSSIBILITIES FOR INTERNATIONAL CO-OPERATION: SUGGESTIONS TO THE ETF

The issue of strategies for innovation in VET systems is a complex and vast area. Although the outcome of the Bled conference and its follow-ups were challenging and promising, the last word on strategies had not been spoken. At least three clusters of studies and actions could be considered.

7.1. First option: continuation of this study

In an area of permanent change, as VET is, more studies on positive and negative experiences in innovation should be undertaken to improve our knowledge on these factors. Further extension of this study and more importantly further testing of its findings would help to achieve an instrument for assisting in innovation for both governments and institutions. Such an instrument (in the form of a manual of options) could help future innovations.

7.2. Second option: extension to company training

It is generally proclaimed that the level of innovative capacities in training in enterprises is higher than in initial VET systems, and that in this field numerous remarkable examples of innovation have been developed in the latest years. This point could be worthy of further study and eventual discussion at the Advisory Forum in future. Such as study could be interesting from a double point of view: on one hand, collecting experiences that can help to construct a better understanding of VET in government funded institutions; on the other, it may also broaden the view of reinforcing the practical side of training and introducing early warning of the new requirements for innovation concerning enterprises and labour market needs.

7.3. Third option: integration of the results of the Subgroups of the Advisory Forum in terms of implementation

The present series of reports of the four Subgroups contain coherent and highly connected key issues for the further development of VET systems. It may be useful to integrate the outcomes of the projects and design "strategies for innovation" in terms of concrete views on implementation and application in practice.



7.4. Fourth option: experimentation and supporting innovation

Supporting concrete innovations in the key areas that were examined in this study. Experimentation is required to find the right solutions in different environments and cultures. The European Training Foundation could support well-defined and promising government and/or institutional innovative actions with both expertise and (modest) funds. These initiatives could be considered as experiments which may flourish in other places as well. Using the National Observatories and setting a modest "innovation-fund" aside could be enough to stimulate innovation.

7.5. Fifth option: Human Resource Management Policies in VET

In nearly all VET systems the time bomb of the lack of attention for active and modern personnel policies in the form of human resource management is ticking away. We expect VET management and (more importantly) VET teaching staff to be in the midst of a rapidly changing economy and society. Yet in most cases the personnel policies applicable to VET managers and teachers do not encourage them to meet these expectations. Their professional career and training opportunities are not flexible enough to allow a permanent contact with the quickly evolving labour market. The design of active human resource management practices that can be implemented for VET systems could be of great help for the future.



ANNEX 1: TERMINOLOGY

The field of VET is complex and varies in terms of definitions, actors, and policy instruments almost per country. When in this document the following terms are used, this is meant:

Term	Definition
VET	= Vocational Education and Training. This could take place in (predominantly) government funded educational institutions, private educational institutions and/or within companies.
VET institution	School was VET is provided. In this study the main focus is "government funded institutions"
initial-VET	The vocational education and training which is undertaken before or upon first entering an occupation or job
post-initial VET	The vocational education and training which is undertaken after initial-VET
Lifelong learning	A system which offers opportunities to identify and meet learning needs over the course of one's working life
innovative activities	actions which are concerned with the creation, introduction and the use of new ideas, systems, behaviours or things
Reform of VET	Goals, policies, strategies and the processes needed to re-align national vocational and the education systems to the needs of emerging or re-structured market economies
(government) policy instrument	(Government) method (or vehicle) through which governmental change is directed. Such vehicle could be a law, planning system, financing, non-coercive forms as incentives etc.
management instrument	Methods (or vehicles) through which change is directed by the institutional management. It is, so to speak, the policy instruments for institutions.
social partners	Employers, represented by various employer organisations or associations, and the workers, represented by trade unions and the other professional bodies
curricula	Course(s) of study (studies) that are available for a specified group of learners which is undertake as part of an educational institutions



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ANNEX 3: THE QUESTIONNAIRE

Questions on Innovation of VET-Systems

Instruction

In this questionnaire statements are presented and you are requested to judge these statements on a 1-5 scale.

Score 1 indicates that the statement is not relevant in the case presented; 5 very relevant. Obviously the scores 2-3-4 indicate more and more support for or relevance of the statement

Please place a cross in the box which most closely represents your opinion.

If you have no opinion whatsoever, please place the cross in the box NO.

You are kindly requested to return the questionnaire on Sunday afternoon (March 29) before the meeting in Slovenia to either the chair, Prof. Janko Mursak, the Foundation representative, Dr Elena Carrero or the expert Dr Olaf McDaniel.

The results will be statistically analysed and the initial conclusions will be presented in the meeting on Monday, March 30.

The results will be presented anonymously, and in the further use of this material anonymity is guaranteed.

The reason that you are requested to fill in your name, country and position is for administrative purposes only.

In the first question, you are requested to indicate the year of the last major reform on the three main issues that took place.

It is important that the rest of the questionnaire is filled in as an evaluation of that last major reform.

name:	
country:	
position:	



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STAGE 1. PREPARATION AND DECISION	Curriculum innovation	Innovation of personnel policy	Innovation of institutional management
1. When was the last major reform?	Year: 93 - 94 - 95 - 96 - 97	Year: 93 - 94 - 95 - 96 - 97	Year: 93 - 94 - 95 - 96 - 97
NOTE: all further questions should be related to this last reform			
2. What was the reason for the innovation (please indicate the relevance?	Not Highly relevant	Not Highly relevant	Not Highly relevant
	relevant	relevant	relevant
 to better meet the needs of trade and industry 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 to better meet the needs of students 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 to improve the quality of the education 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 to solve concrete problems identified by government 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 to solve concrete problems identified by institutions 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 to solve concrete problems identified by trade and industry 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 for budgetary reasons 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 political motives to achieve certain political ideas 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 required by other (non-educational) national legislation 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 required by international legislation/directive 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
3. What was the level of involvement in the initiative for the reform?	Low High	Low High	Low High
central government	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
local government	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 government and social partners 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
social partners	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
VET institutions	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 government, social partners and VET institutions 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 other actors or combination of actors? 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO

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lved in the preparation 1 - 2 - 3 - 4 - 5 1 - 2 - 3 - 4 - 5	Low High		
 central government local government 		Low High	Low High
• local government 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
government and the social partners sovernment and the social partners	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• social partners 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• VET institutions 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
government, social partners and the VET institutions	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• other actors or combination of actors?	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
5. What was the level of influence in the final decision? Low High	Low High	Low High	Low High
• central government 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• local government 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
sovernment and the social partners	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• social partners 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• VET-institutions 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
government, social partners and the VET-institutions 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• other actors or combination of actors?	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
6. What is the level of responsibility for the implementation? Low Hi	Low High	Low High	Low High
• central government 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• local government 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
government and the social partners	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• social partners 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• VET institutions 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• government, social partners and the VET institutions 1 - 2 - 3 - 4 - 5 -	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
• other actors or combination of actors?	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO



S	STAGE 2. IMPLEMENTATION	Curriculum innovation	Innovation of	Innovation of
			personnel policy	institutional management
Ŀ	1. The decisions regarding the innovation were unambiguously clear for:	Very unclear Very clear	Very unclear Very clear	Very unclear Very clear
	• government	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	• politicians	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	institutional management	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
_	• the teachers	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	social partners	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
_		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
12	2. The level of preparation of the institutions on the following issues was	Low High	Low High	Low High
	low/high:			
	 time for preparation of the innovation 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	 time for learning experiences in the implementation process 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	 special preparation of staff and the management to enhance their 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	expertise	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	 additional funds to facilitate and the stimulate the innovation 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	 possibilities for evaluation and the feedback 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO



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 The level of support b The policy-developm trade and industry social partners 			personnel policy	
	The level of support by the institutions for the innovation was low/nign	Very low Very high	Very low Very high	Very low Very high 1 - 2 - 3 - 4 - 5 - NO
trade and indsocial partne	The policy-development process was interactive for:	Very low Very high	Very low Very high	w very
 social partne 	ustry	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	S.	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
local authorities	lies	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
institutions		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
3. It was generally	It was generally accepted that the innovation would be able to solve	Not Highly	Not Highly	Not Highly
the problem it was aiming at	as aiming at	accepted accepted	accepted accepted	accepted accepted
•		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
4. It was generally	It was generally accepted that the way the innovation was implemented	Not Highly	Not Highly	Not Highly
(policy instrume	(policy instruments) would be effective	accepted accepted	accepted accepted	accepted accepted
,		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
5. The policy decis proposed was no	The policy decision process was sufficiently fast (so the change proposed was not outdated by the time of the implementation)	Slow Fast	Slow Fast	Slow Fast
•		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
6 Institutions that	Institutions that were active and fast in the implementation were	Not Highly	Not Highly	Not Highly
rewarded		the case the case	the case the case	the case the case
		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
7. Institutions that	7. Institutions that were slow and 'disloyal' were punished	Not Highly	Not Highly	Not Highly
		the case the case	the case the case	the case the case
		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
8. The policy proce	The policy process of the innovation will be evaluated	Not Highly	Not Highly	Not Highly
•		the case the case	the case the case	the case the case
		1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO

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STAGE 3 EVALUATION	Curriculum innovation	Innovation of	Innovation of
		personnel policy	institutional management
9. The implementation by the institutions will be carefully monitored	Not Highly	Not Highly	Not Highly
and, if necessary, the changes will be made	the case the case	the case the case	the case the case
	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
10. The (expected) level of success of the innovation is	Low High	Low High	Low High
	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
11. This level of (expected) success is influenced by:	Not Highly relevant	Not Highly relevant	Not Highly relevant
	relevant	relevant	relevant
 the way the decision was prepared 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 the level of support in the decision 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 the way in which the institutions implemented the innovation 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
the policy instruments used	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
 the budgetary situation 	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO
	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO	1 - 2 - 3 - 4 - 5 - NO

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